New climate change assessment report

5 December 2011 - The results of a major new scientific assessment of climate change were published today, highlighting the changes the world has already seen and the impacts it could face if global temperature changes are not limited.

The assessment commissioned by Chris Huhne, the UK's Secretary of State for Energy and Climate Change, and lead by the Met Office Hadley Centre studied 24 different countries, from developed to developing. It notes that all the countries in the study have warmed since the 1960s and that the occurrence of extremely warm temperatures has increased whilst extremely cold temperatures have become less frequent.

If emissions are left unchecked, the report says temperatures would rise generally between three and five degrees Celsius this century. This could be accompanied by significant changes in rainfall patterns, leading in many cases to increased pressure on crop production, water stress and flood risks.

Chris Huhne said: "This report highlights some of the very real dangers we face if we don't limit emissions to combat the rise in global temperature. Life for millions of people could change forever, with water and food supplies being placed in jeopardy and homes and livelihoods under threat. This makes the challenge of reducing emissions ever more urgent.

"The UK wants a legally binding global agreement to keep the global temperature rise below two degrees. If this is achieved this study shows that some of the most significant impacts of climate change could be reduced significantly. By the end of this week we need to see progress to move towards this goal."

Richard Jones, Manager of Regional Climate Change Research at the Met Office Hadley Centre said: "Projections of climate change impacts often fall in a wide range which can include both beneficial and detrimental outcomes. This study has begun the important work of applying a globally consistent approach to assess the impacts of climate change at the national level."

Key findings:

- All countries studied show an increase in the number of people at risk from coastal flooding due to sea level rise. By the end of the century, in the worst case scenario, up to about 49 million additional people could be at risk, with the majority being in Bangladesh, China, India, Egypt and Indonesia;
- The majority of countries studied are projected to see a significant increased risk of river flooding;
- The production of staple food crops may decline in parts of Bangladesh, Brazil, China, Egypt, India, Russia, Turkey, and the USA. In some cases, crop yield increases may be expected for example in Germany and Japan. Food security is highlighted as a growing risk before 2040 in Bangladesh and India;
- Water resources are threatened by drought and growing demand. Areas highlighted as likely to suffer increased water stress include parts of Italy, France and the southwest USA. In some cases however, water stress may decline in some regions.

The individual country reports are published online at Climate: observations, projections and impacts.

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